

CLAIMS

1. A portable device suitable for providing continuous passive motion of a limb comprising :
 - a brace for supporting a distal end (26) of said limb;
 - a drive mechanism for providing a settable continuous passive motion of said limb, said drive mechanism being coupled to said brace and controlling movement of said distal end (26) of the limbcharacterized in that
 - said passive motion is controlled in a first control point and a second control point on said distal end (26) of said limb; and said drive mechanism comprises at least a first unit for controlling movement of said first control point of said distal end (26) of said limb.
2. A portable device according to claim 1, wherein said drive mechanism further comprises a second unit for controlling the movement of said second control point of said distal end (26) of said limb.
3. A portable device according to claim 1, furthermore comprising means for immobilizing said second control point of said distal end (26) of said limb.
4. A portable device according to claim 1 wherein said portable device furthermore comprises flexible positioning means (7) provided with a fastening means positioning said brace and said drive mechanism on the body of a patient carrying said device in a stable position, whereby said drive mechanism is at least partially housed within said positioning means (7).
5. A portable device according to claim 1, wherein said drive mechanism for providing a settable continuous passive motion of said limb is a programmable motor (31).

6. A portable device according to claim 1 wherein the brace comprises
 - a support for said distal end (26) of the limb comprising a first primary sub-frame (3) for supporting said distal end (26) of the limb,
 - a support for said proximal end (25) of said limb comprising a second primary sub-frame (4) for supporting said proximal end (25) of the limb,
 - a hinge (5) for connecting said support for said distal end (26) of the limb to said support for said proximal end (25) of the limb.
7. A portable device according to claim 1 wherein said brace comprises
 - a secondary sub-frame (15) connected to the first primary sub frame (3) supporting said distal end (26) of the limb by means of a mechanical interface (14), said secondary sub-frame (15) linking said first control point with said second control point; and
 - said mechanical interface (14) is provided near a joint between said distal end (26) and said proximal end (25) of the limb and connecting the secondary sub-frame (15) to the primary sub frame (3) of said distal end (26) of the limb.
8. A portable device according to claim 4, wherein said positioning means (7) comprises an inflatable housing of flexible material provided with a fastening means, said housing allowing at least partial deformation when fastened on a body for providing a stable position.
9. A portable device according to claim 1, wherein said support of the distal end (26) of the limb of said brace is furthermore provided with a limb fastener (10); and said support of the proximal end (25) of the limb of said brace is furthermore provided with a limb fastener (10).
10. A portable device according to claim 9, wherein said fasteners for the distal end (26) and the proximal end (25) of the limb comprise fixing straps (12).
11. A portable device according to claim 1, wherein said support of said distal end (26) of the limb is adjustable in order to fit the length of the distal end (26) of the limb of

the user.

12. A portable device according to claim 2, wherein the first and second motor unit consists of a triple spindle with electromotor with worm wheel transfer, being provided in a housing, allowing the motor units to induce a substantially vertical movement.
13. A portable device according to claim 7 wherein the mechanical interface (14) is provided with a motor-driven sliding mechanism, said mechanism allowing the support of the distal end (26) of the limb to perform a sliding movement.
14. A portable device according to claim 4, wherein the positioning means (7) further comprises belts provided with fasteners, for positioning said device on a body.
15. A portable device according to claim 1 further comprising a remote control unit (19), for controlling the passive movements provided by the device.
16. A portable device according to claim 15, wherein said remote control unit (19) comprises control switches and a visual display screen.
17. A portable device according to claim 1, further comprising two connectors (20) (21), provided at the upper side of the device, whereby one connector is connected to the remote control unit (19) and the other connector is connected to an electric transformer (28) or one or more batteries (27).
18. A portable device according to claim 1, wherein the passive limb movements provided by the device are provided in an automated way.